Canada Health Infoway

Expert Panel: Better Health Outcomes through Digital Health Literacy and Health Equity

eTELEMED 2022
The Fourteenth International Conference on eHealth, Telemedicine, and Social Medicine
Porto, Portugal, June 27, 2022

Katie Bryski, Canada Health Infoway (Moderator)
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Henrietta Mbeah-Bankas, Health Education England
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About the moderator…

Katie Bryski is Senior Specialist, Strategic Initiatives at Canada Health Infoway (Infoway). Since joining Infoway in 2019, she has had the pleasure of working with teams across the organization, immersing herself in projects involving interoperability, virtual care, health equity, patient digital health literacy and more.

Katie currently supports the co-chairs of the Clinical and Consumer Engagement Work Stream in the Global Digital Health Partnership. She also manages, hosts and produces Infoway's Digital Health InfoCast: a biweekly podcast discussing all things digital health.

An interdisciplinarian at heart, Katie previously enjoyed a long career in museum education. While the subject matter domains may be different, she deeply values that experience as she uses her communication and engagement skills to tell the stories of digital health.

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Session Agenda

- Introductory Remarks
- Presentation: *How has the rapid rise in use of virtual care technologies during the COVID-19 pandemic impacted equity in access to care in Canada?*
  - Waldo Beauséjour, Senior Analyst, Canada Health Infoway
- Presentation: *Digital and Health Literacy for the health and social care workforce in England*
  - Henrietta Mbeah-Bankas, Head of Blended Learning and Digital Learning and Development Lead, Health Education England
- Moderated discussion
- Q&A (time permitting)

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Digital Health Literacy: Definitions

- Norman and Skinner (2006): "…[digital health literacy is] defined as the ability to seek, find, understand, and appraise health information from electronic sources and apply the knowledge gained to addressing or solving a health problem."
- Canberra Health Literacy: "…the use of digital literacy skills in health."
- Digital health literacy is a **meta literacy,** incorporating aspects of both digital and health literacy.

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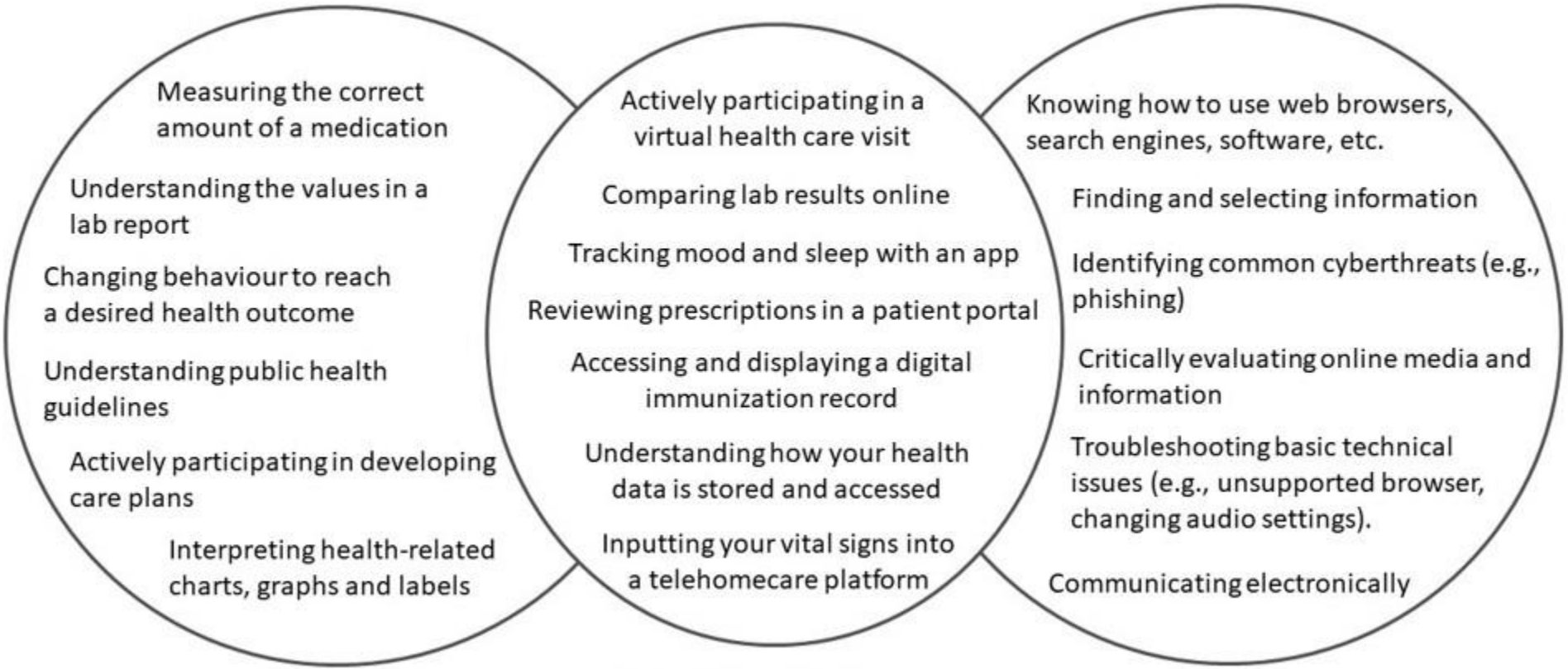
Measuring the correct amount of a medication
Understanding the values in a lab report
Changing behaviour to reach a desired health outcome
Understanding public health guidelines
Actively participating in developing care plans
Interpreting health-related charts, graphs and labels
Actively participating in a virtual health care visit
Comparing lab results online
Tracking mood and sleep with an app
Reviewing prescriptions in a patient portal
Accessing and displaying a digital immunization record
Understanding how your health data is stored and accessed
Inputting your vital signs into a telehomecare platform
Knowing how to use web browsers, search engines, software, etc.
Finding and selecting information
Identifying common cyberthreats (e.g., phishing)
Critically evaluating online media and information
Troubleshooting basic technical issues (e.g., unsupported browser, changing audio settings).
Communicating electronically
Health Literacy
Digital Health Literacy
Digital Literacy

Canadian Context-Setting

- The significant shift to virtual care as a result of COVID-19 has underscored the need to improve digital literacy skills
- A 2021 national survey of Canadians* found that:

79% were interested in accessing their own personal health information electronically

73% had at least one virtual health interaction in the previous 12 months

54% report knowing what health resources are available online

13% strongly agree that they can tell high quality online health resources from low quality

**Canadian Digital Health Survey 2021: What Canadians Think*

And so…

- COVID-19 has led to increased use and interest in virtual care and digital health tools.
- However, we need to ensure that individuals have sufficient digital health literacy skills to get the most value from these services.
- We also need to take care not to exacerbate the unintended consequences of a “digital divide.”
- Let’s take a closer look at the relationships between patient digital health literacy, equitable access to digital health, and health outcomes.

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Waldo Beauséjour, Canada Health Infoway

- Senior Analyst, Canada Health Infoway
- Has led many projects including Infoway's Digital Health Equity Analysis, 2020 National Survey of Canadian Nurses and national COVID-19 tracking surveys.
- Extensive experience in conducting impact evaluations aiming at assessing the effects of government-funded initiatives on health outcomes

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Henrietta Mbeah-Bankas, Health Education England

- Head of Blended Learning and Digital Learning and Development Lead, Health Education England
- Research interest: equitable access to healthcare and education, particularly for individuals from minority ethnic backgrounds.
- Currently focusing on the development of digital capabilities and the use of digital technologies in educating and training the health and care workforce.

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Digital Health Equity Analysis: Access to and Use of Digital Health Services

eTELEMED Conference

June 27, 2022

Waldo Beauséjour, Analyst Performance Analytics,
Canada Health Infoway

Key Findings

- Access to digital health services and virtual care utilization varied across some of the major health-related factors such as access to a regular HCP, access to a health coverage and presence of chronic conditions.
- Variability was found in the access to digital health services and virtual care utilization across several sociodemographic factors, notably for race/ethnicity, geographic location and primary language spoken at home.
- Unemployed Canadians reported the lowest proportion of people with access to digital health services (47%) and the lowest average number of virtual care visits (1.6).
- The proportion of Canadians accessing digital health services and the average number of virtual care visits seemed to increase with household income.

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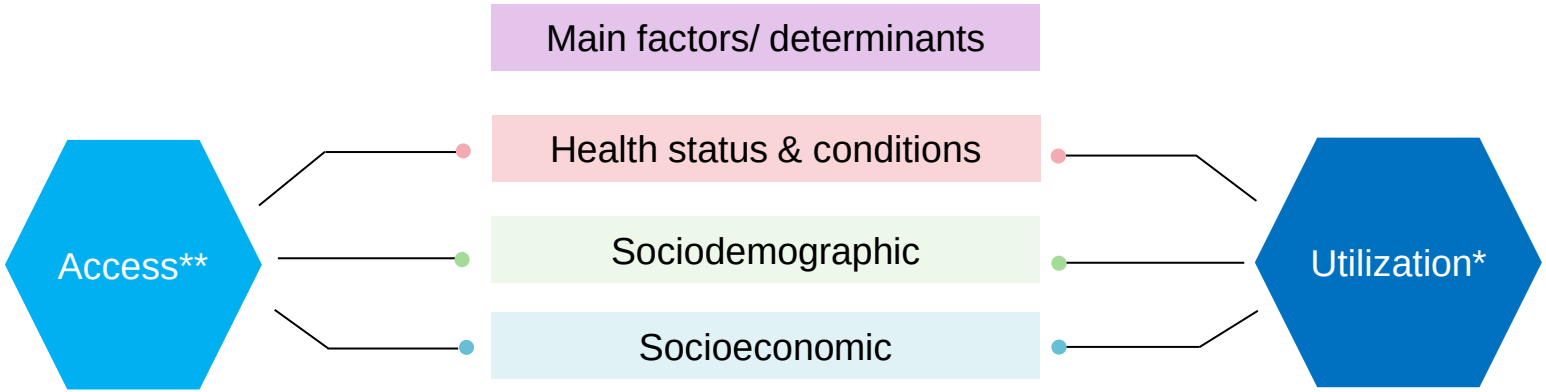
Objective : Understand how Access to & Utilization of Digital Health Services Varied across Equity Factors



** Access is measured through this question:
Question: Have you ever accessed the following electronically-enabled health services?
note: for each of the following, please indicate whether you have accessed this type of health information or service electronically/online anytime in the past..

*Usage or utilization is measured through:
Question: In the PAST 12 MONTHS, please specify how many times you have done each of the following (*Do not count times when you were an overnight patient in a hospital or if you were supporting a loved one or friend you are caring for during their visit with a health care professional).

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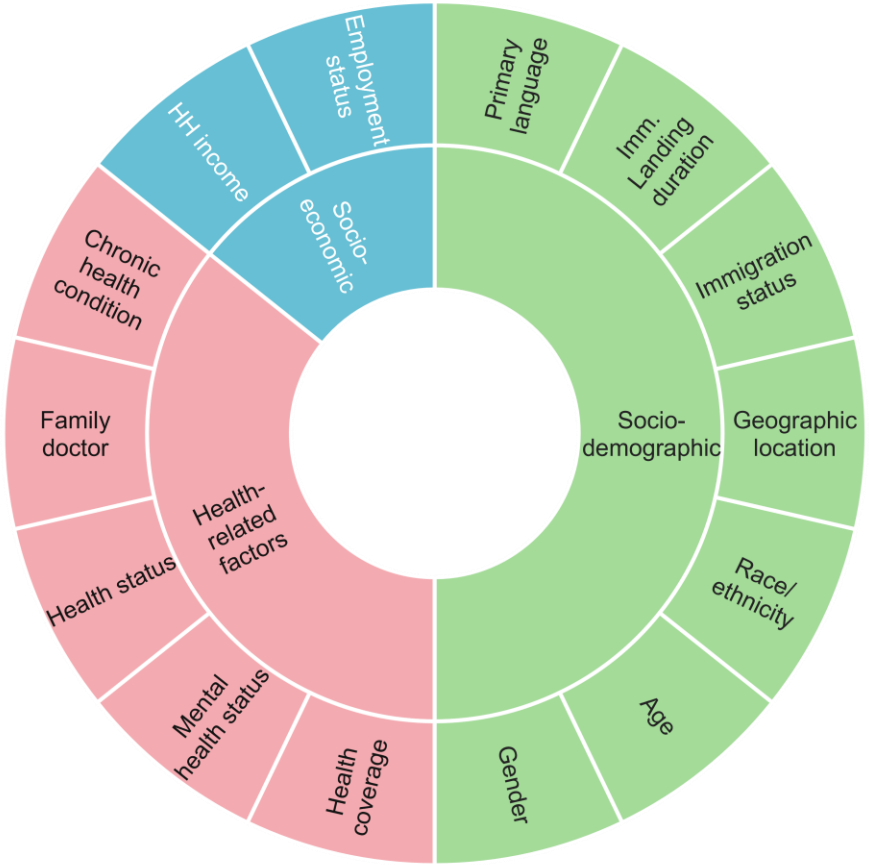
Methodology : Equity Stratifiers



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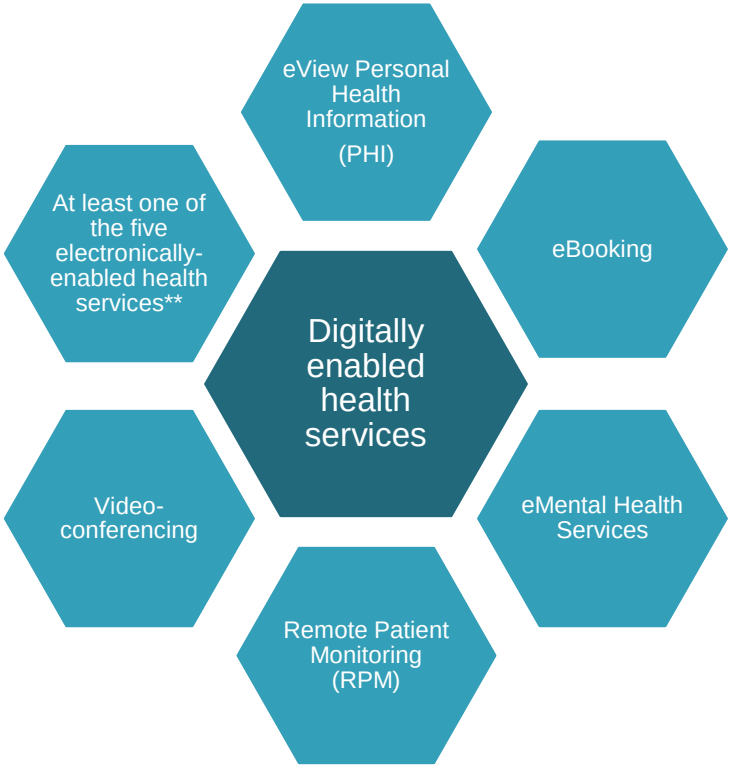
Methodology : Digitally Enabled Health Services



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**This indicator is a combination of the five electronically-enabled health services considered in the analysis. It takes “Yes” if the respondent indicated that they had access to at least one of the five digital health technologies, and “No” otherwise.

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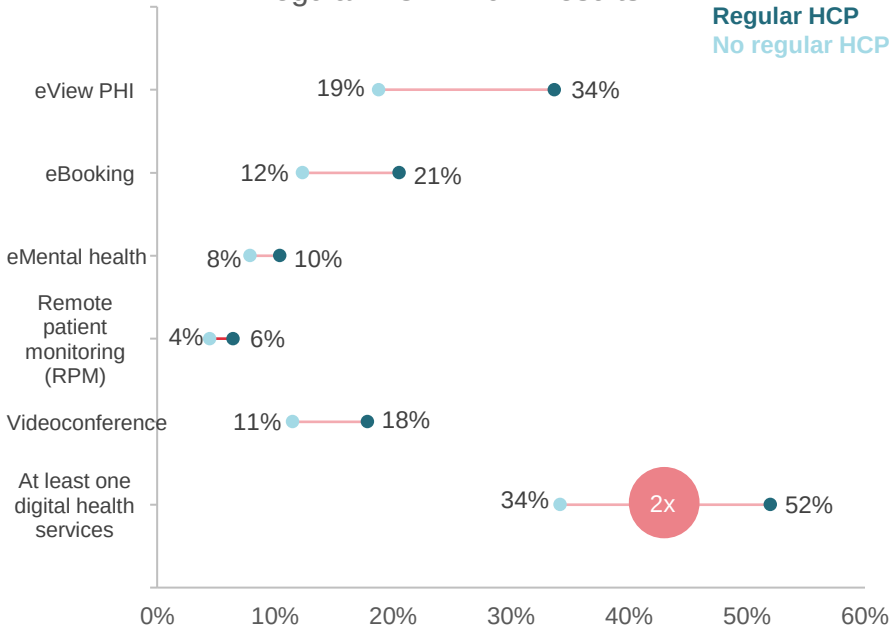
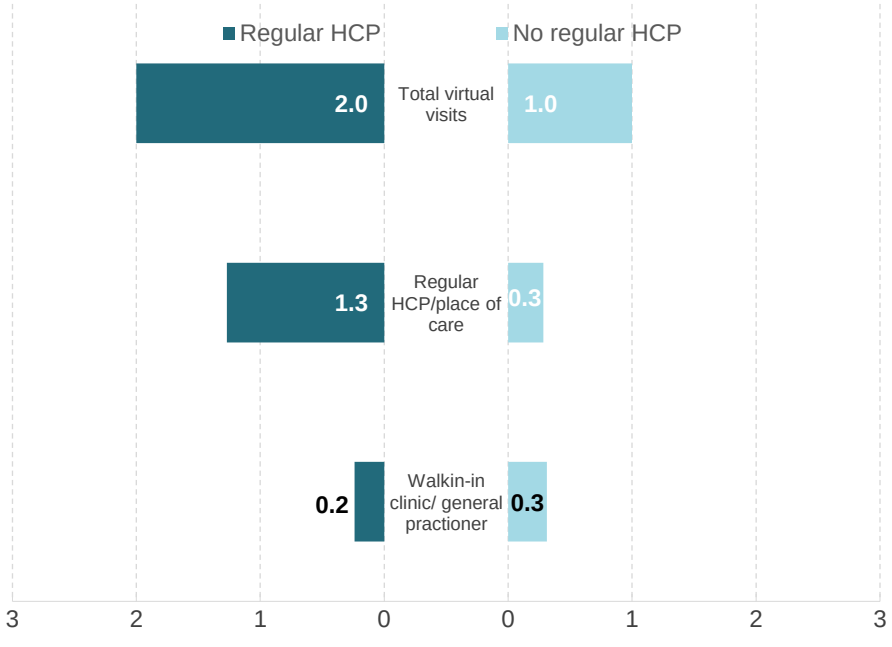
Health-Related Factors and Digital Health Inequalities

Access to Family Doctor/ Regular Place of Care

Access to digital health services and access to regular HCP - 2021 results



Average number of virtual primary care* visits by access to regular health care provider (HCP) - 2021 results



*A virtual primary care visit includes virtual visits to a family doctor/regular place of care, virtual visits to a specialist who is not the regular family doctor, and virtual visits to walk-in clinics/ general practitioner who is not the family doctor.

Source: 2021 Canadian Digital Health Survey, Canada health Infoway and Léger

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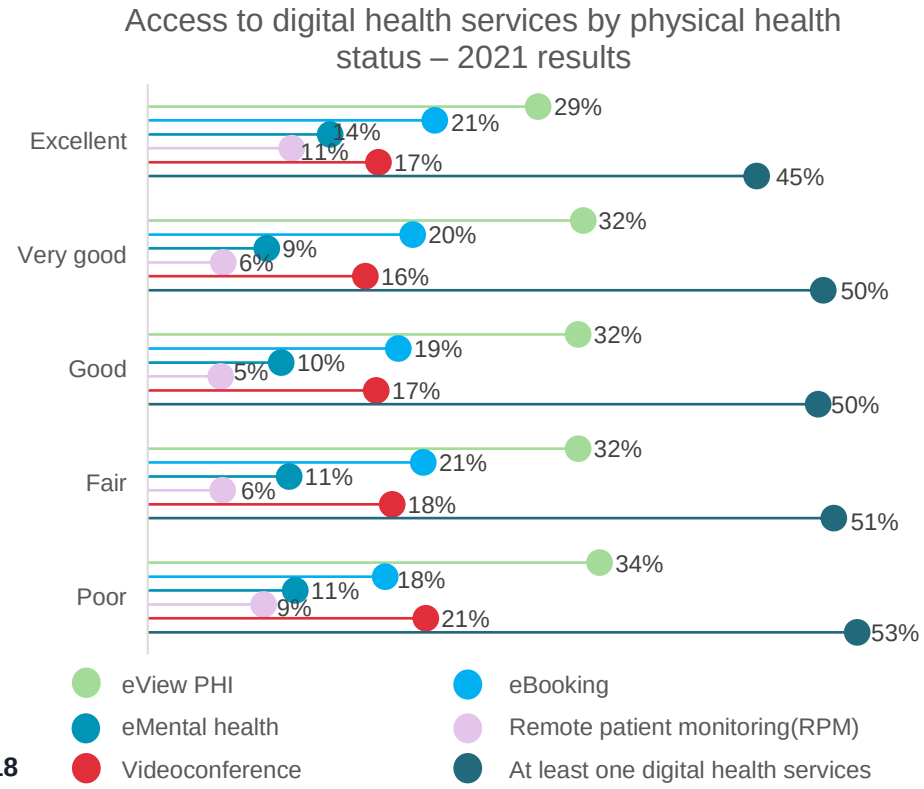
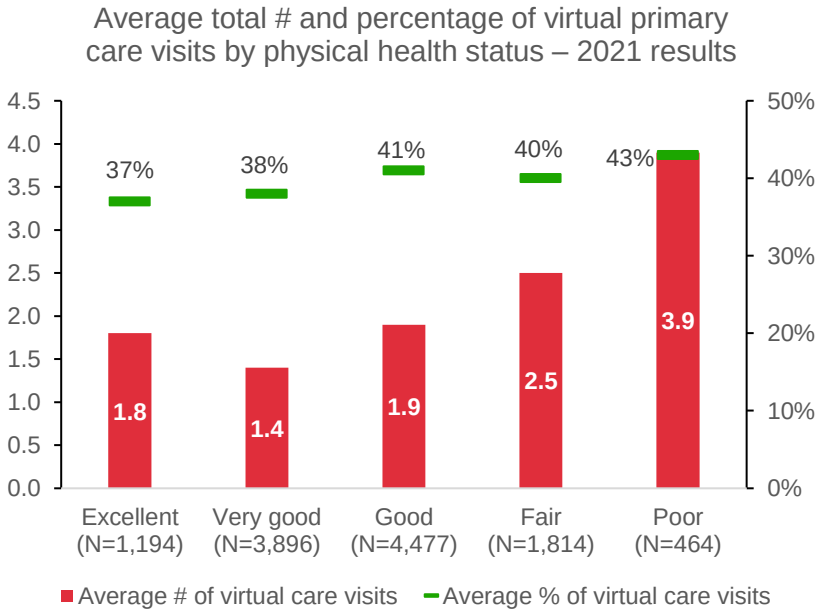
Physical Health Status - Self-Assessment





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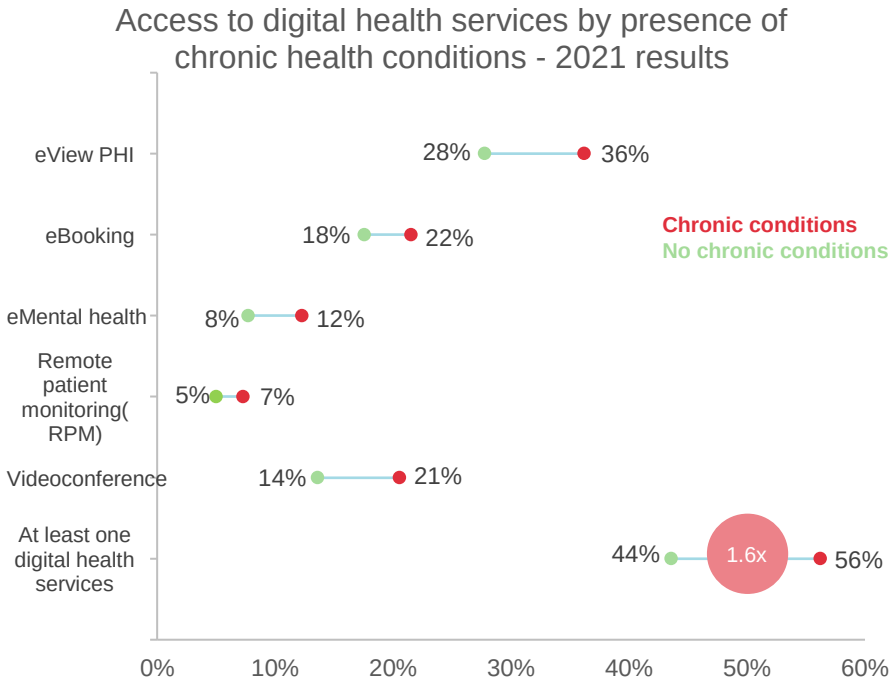
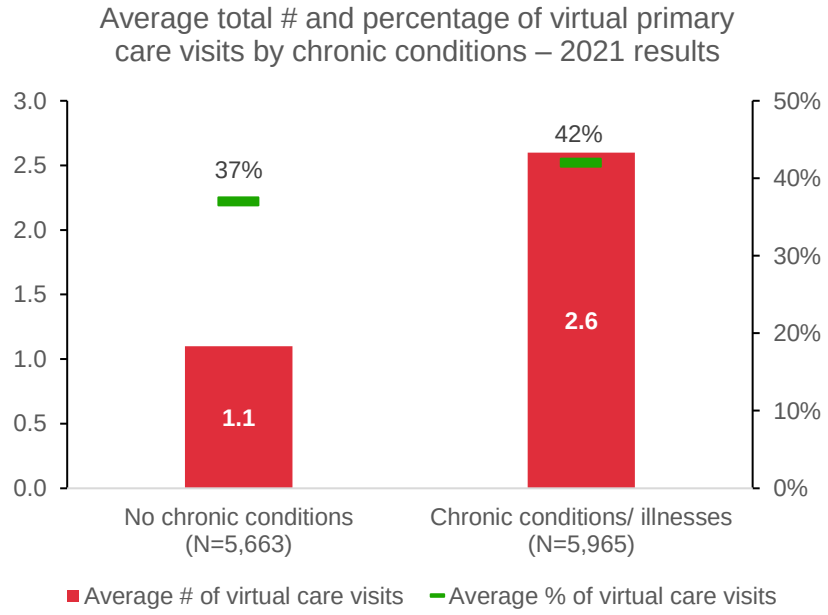
Chronic Health Conditions





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Source: 2021 Canadian Digital Health Survey, Canada health Infoway and Léger

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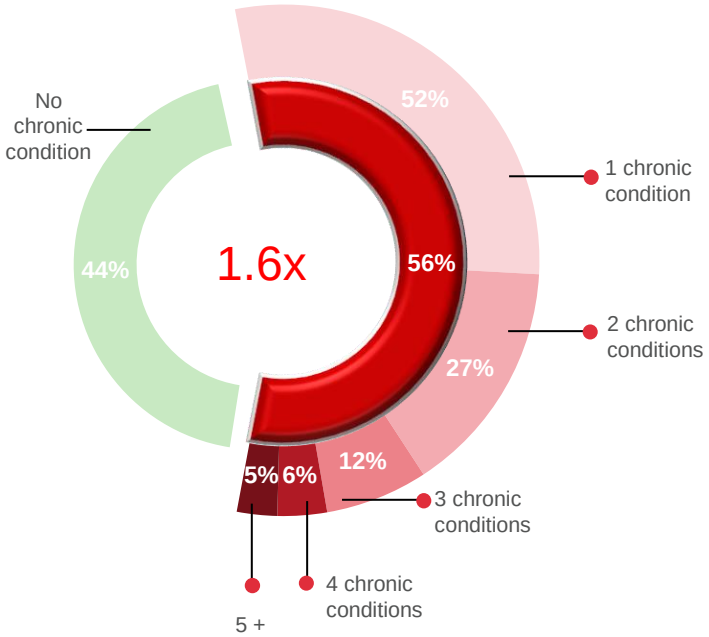
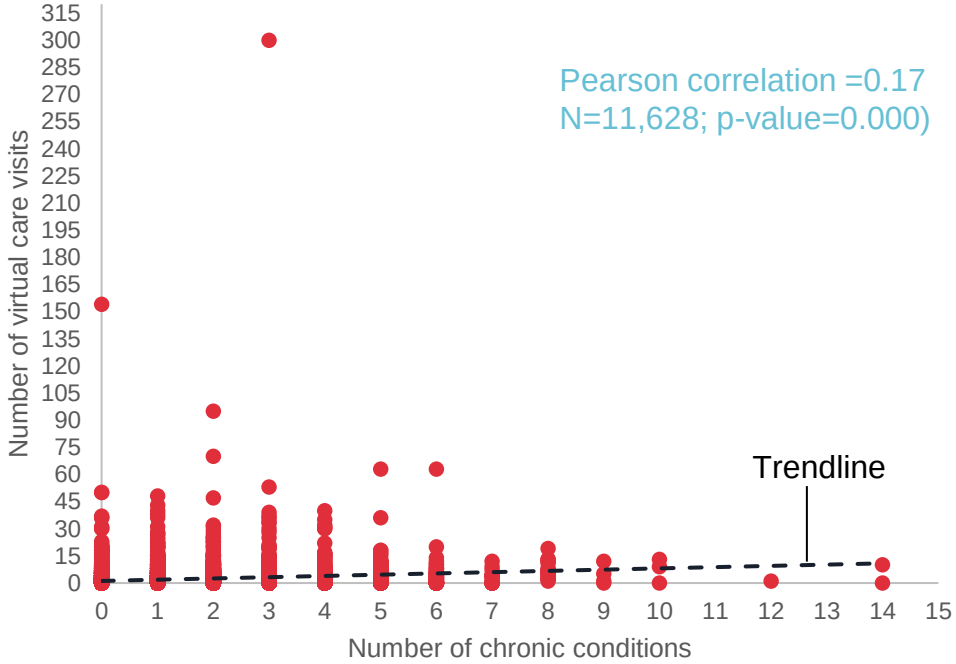
Chronic Health Conditions(cont.)

Access to digital health services and chronic conditions – 2021 results



Number of chronic conditions and total number of virtual primary care visits – 2021 results



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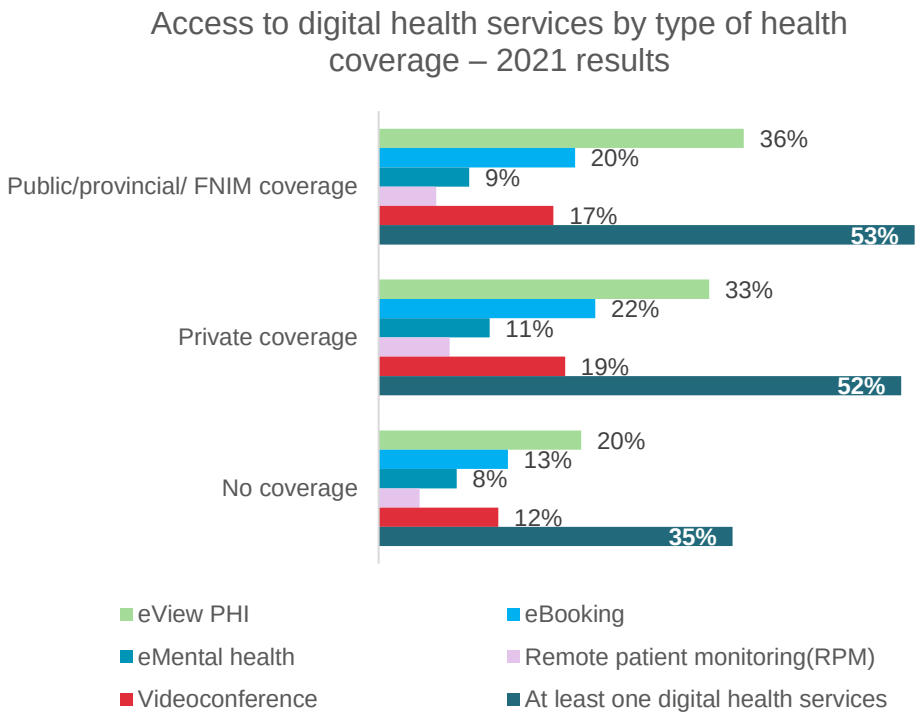
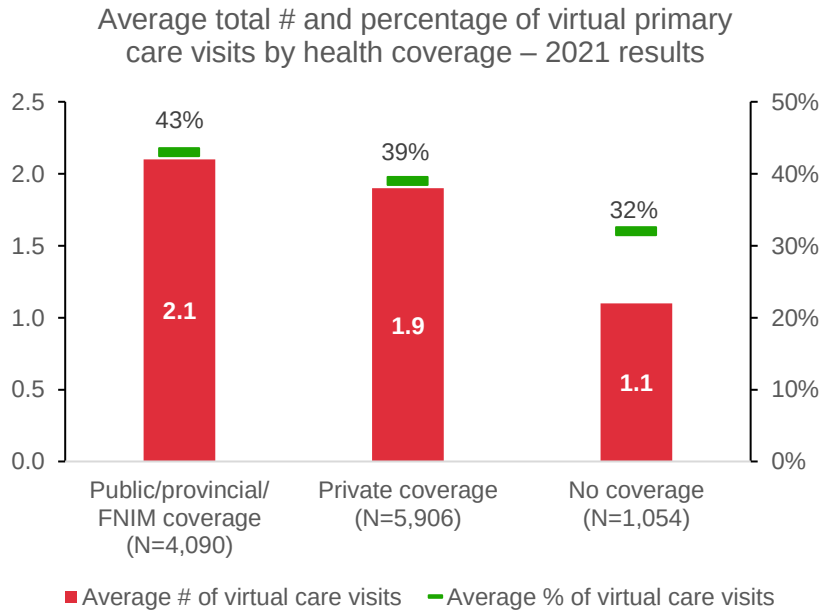
Health Coverage





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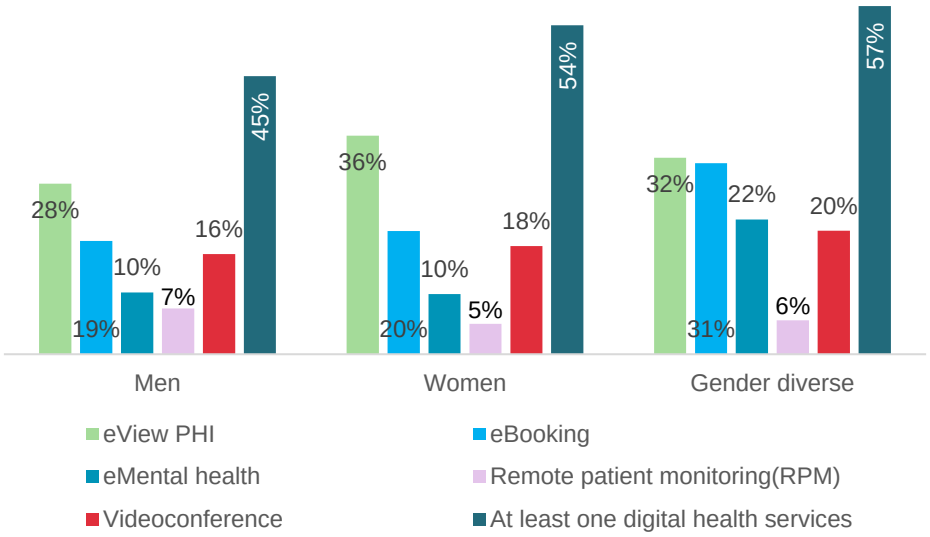
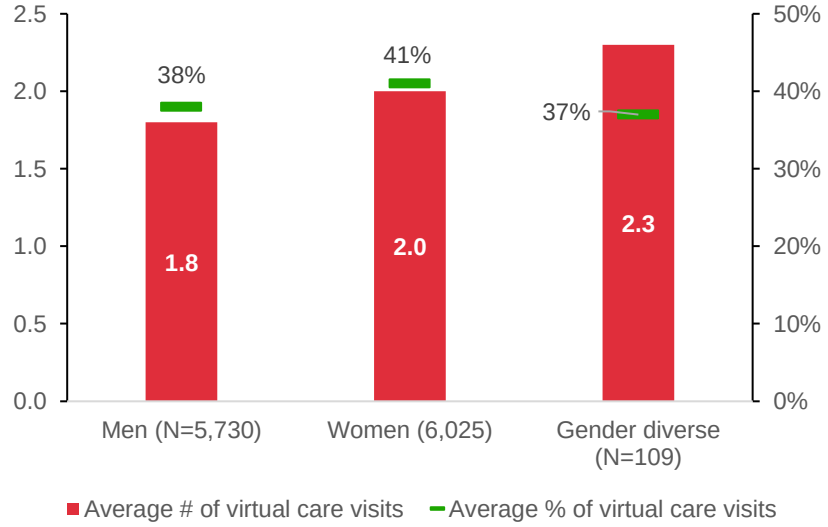
Sociodemographic Factors and Digital Health Inequalities

Gender Identity

Access to digital health services by gender identity – 2021 results



Average total # and percentage of virtual primary care visits by gender identity – 2021 results



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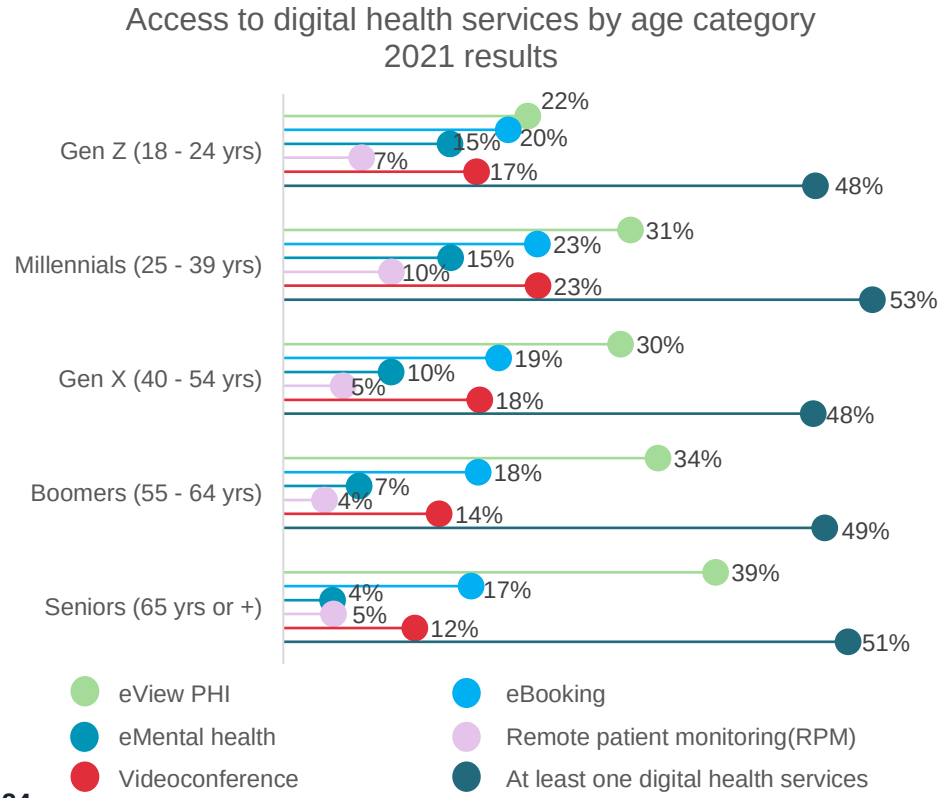
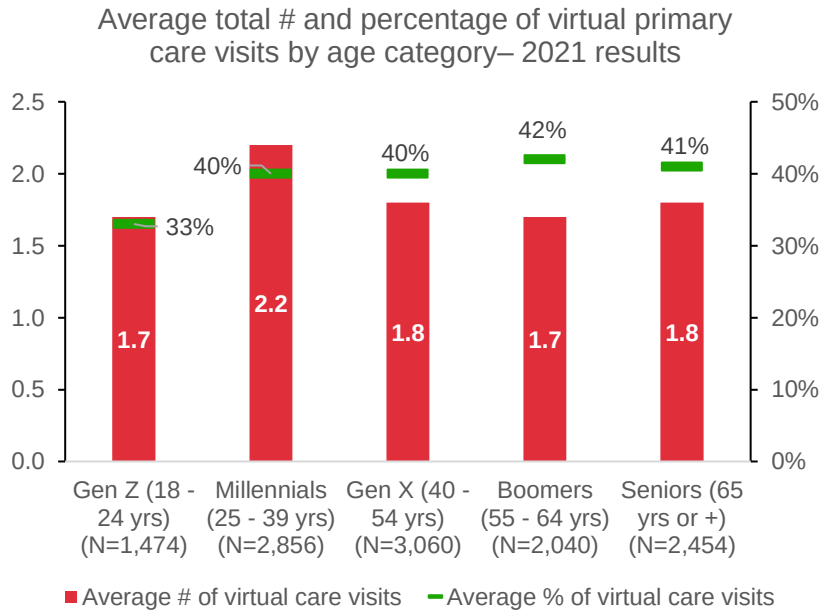
Age Category





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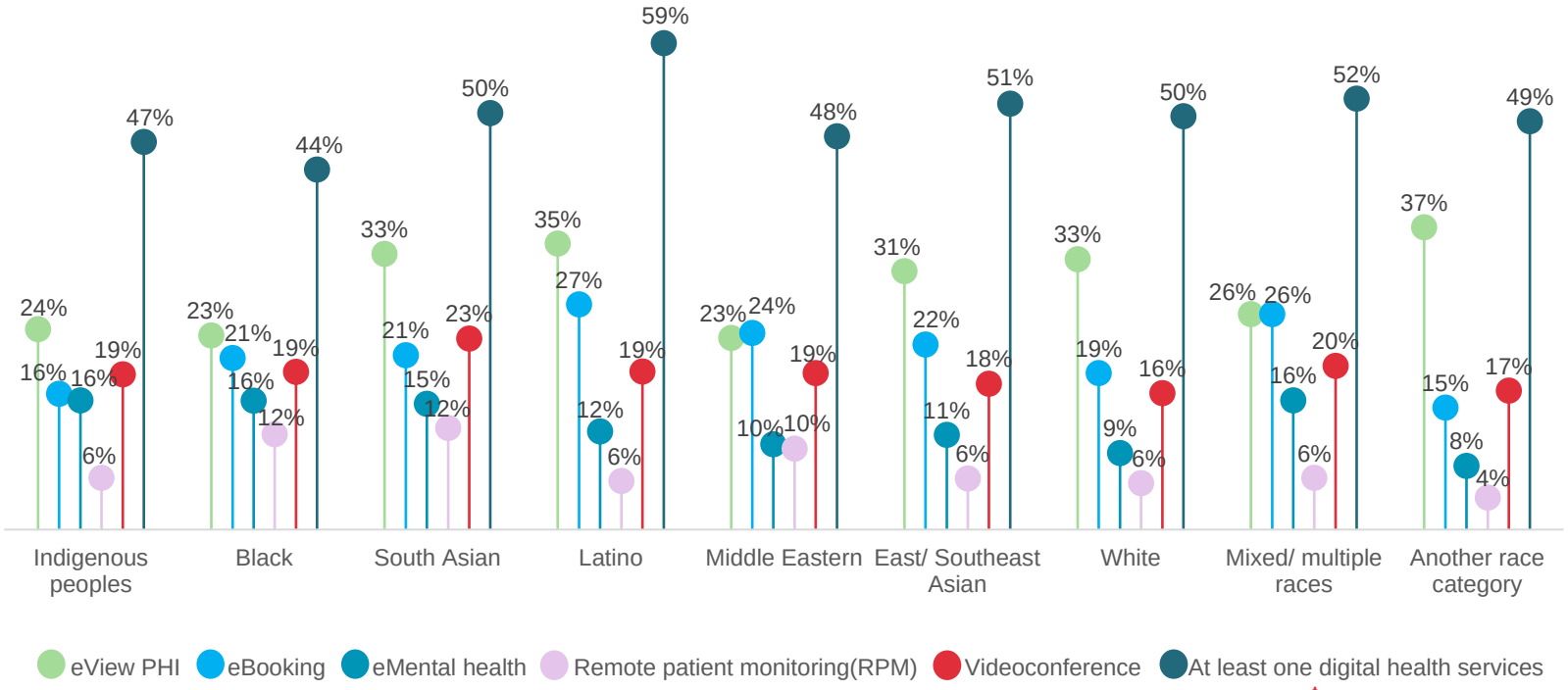
Race/Ethnicity

Access to digital health services by race/ ethnicity – 2021 results



Source: 2021 Canadian Digital Health Survey, Canada health Infoway and Léger

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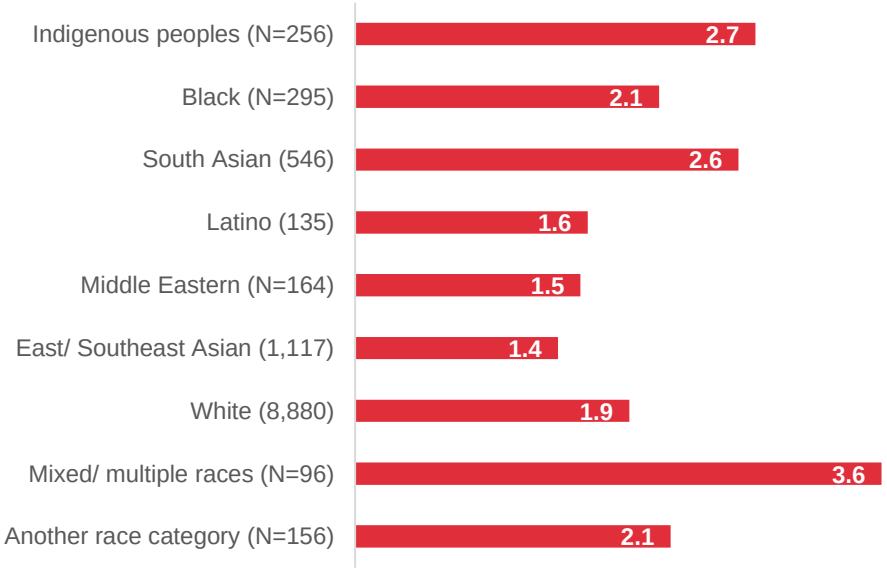
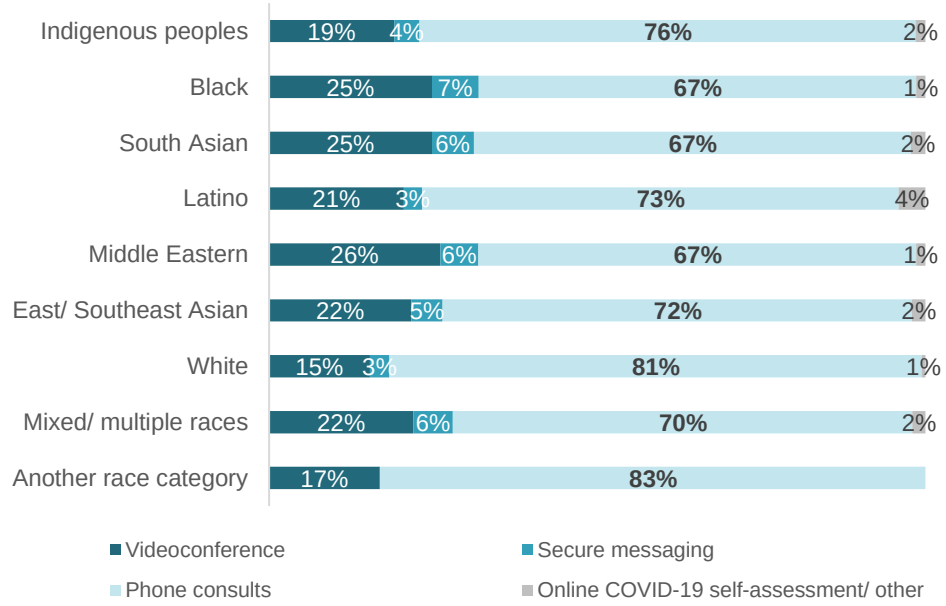
Race/Ethnicity (cont.)

Average total number of virtual primary care visits by race/ ethnicity – 2021 results



Race/ ethnicity and virtual care modality used for most recent health care visit – 2021 results



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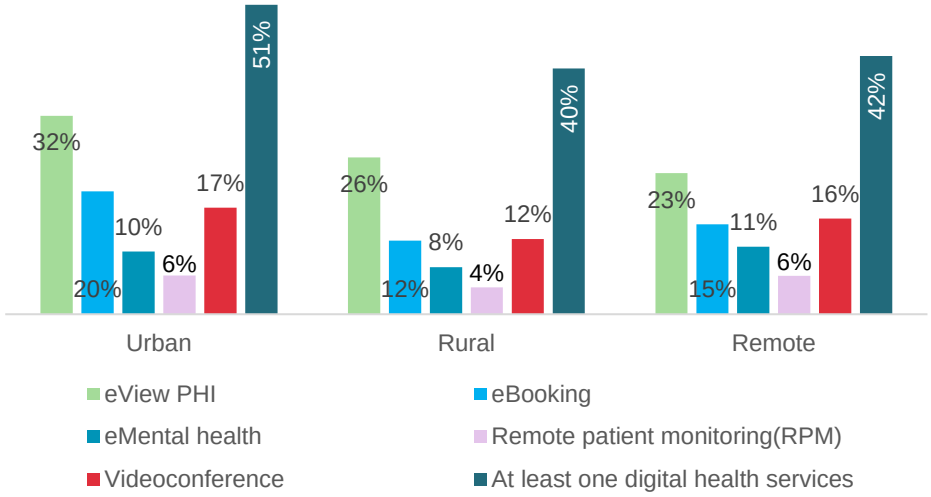
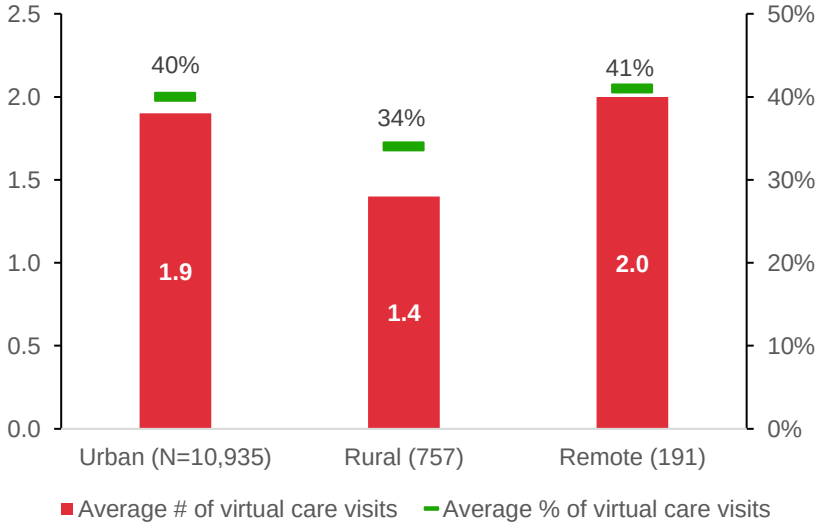
Geographic Location

Access to digital health services by geographic location – 2021 results



Average total # and percentage of virtual primary care visits by geographic location – 2021 results



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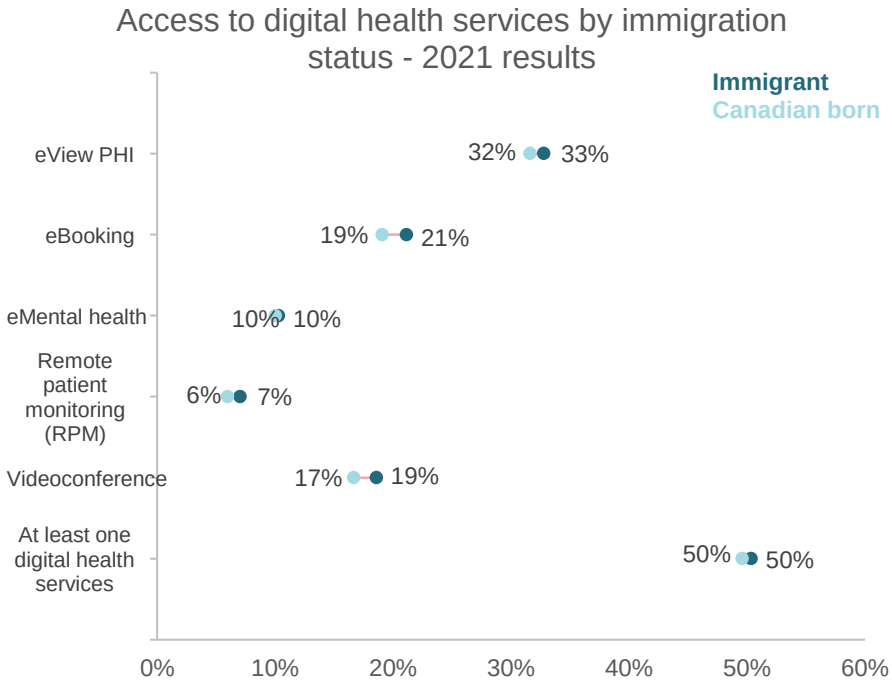
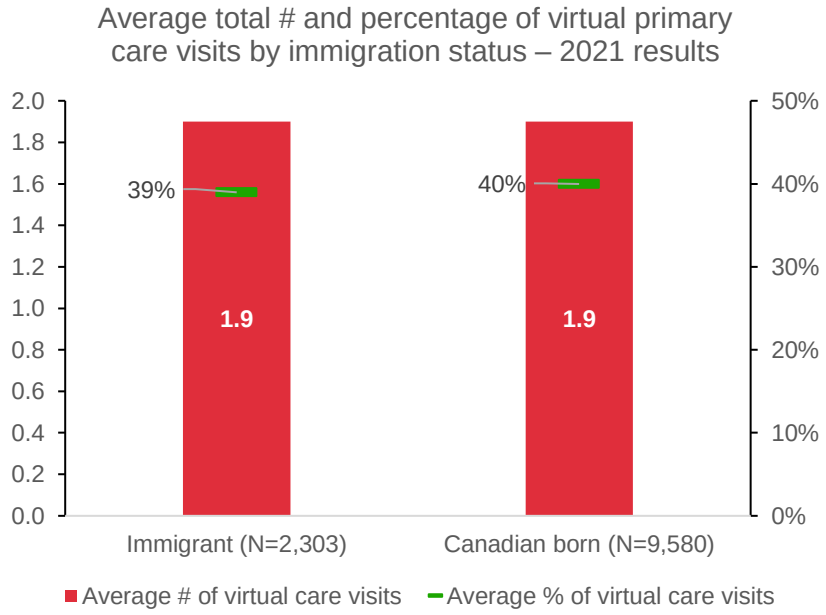
Immigration Status





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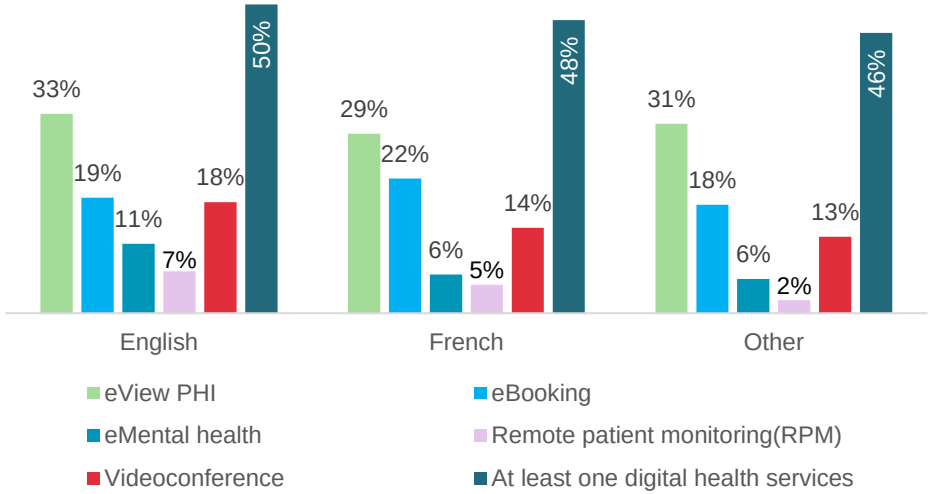
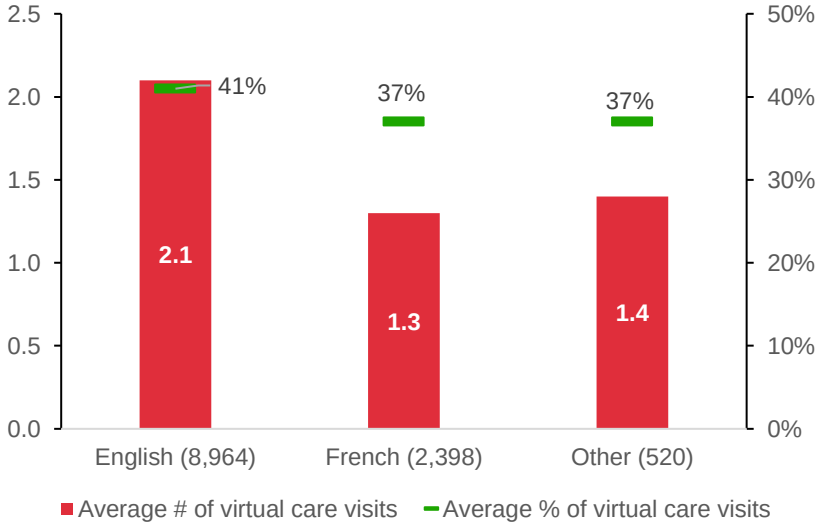
Primary Language Spoken at Home

Access to digital health services and primary language spoken at home – 2021 results



Average total # and percentage of virtual primary care visits by primary language – 2021 results



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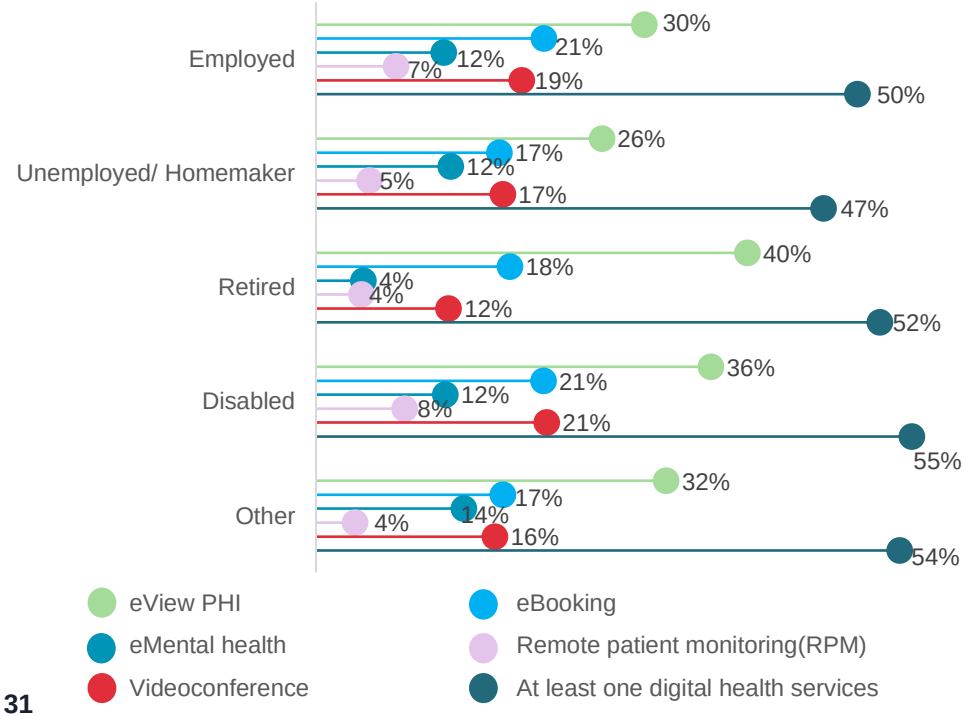
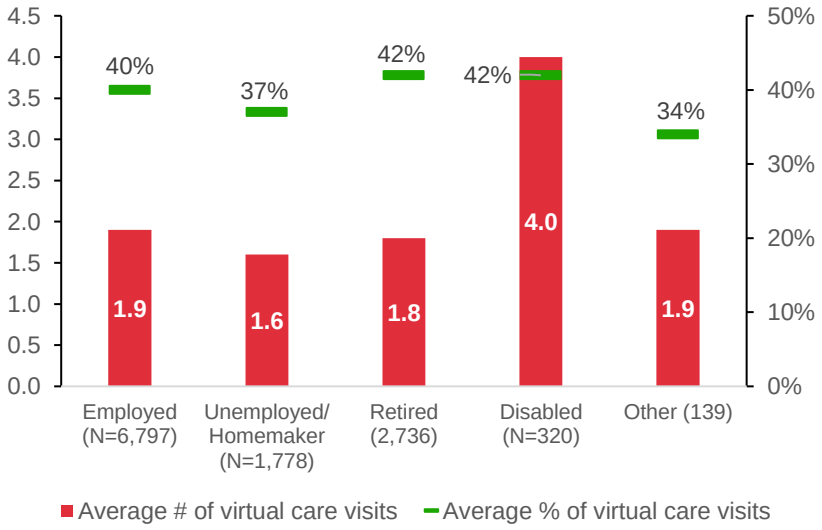
Socioeconomic Factors and Digital Health Inequalities

Employment Status

Access to digital health services by employment status - 2021 results



Average total # and percentage of virtual primary care visits by employment status – 2021 results



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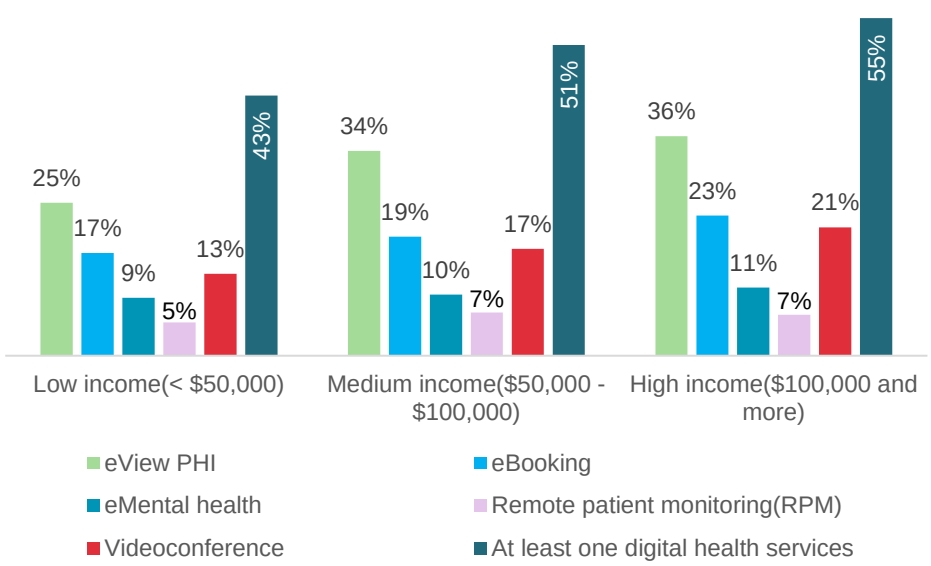
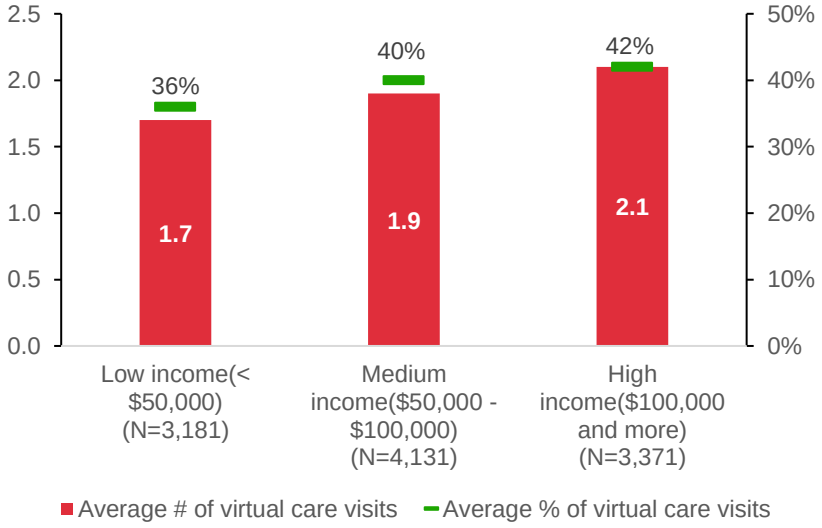
Household Income

Access to digital health services and household income – 2021 results



Average total # and percentage of virtual primary care visits by primary language – 2021 results



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NHS
Health Education England

Digital Health Literacy- Impact of Virtual Care on equitable patient access

Henrietta Mbeah-Bankas

Head of Blended Learning and Digital Learning and Development Lead – Health Education England

NHS Clinical Entrepreneur

Objectives

- Define digital and health literacy
- Challenges
- Virtual Care provision
- Effective tools, resources and processes to address digital health literacy gaps

Defining digital and health literacy

“Digital literacies are those capabilities that fit someone for living, working, learning, participating and thriving in a digital society.”

Health literacy is the ability to access, assess and use health information to make decisions – Rowlands et al (2015)

Digital Health Literacy: national challenge

NHS
Health Education England

Health literacy levels in England

43%

43% adults aged **16-65** cannot understand word-based health information sufficiently well to make health decisions.

61%

Where numbers are added in, **61%** of adults are unable to understand and act on the information.

Digital literacy levels in England

6%

Adults 18+ do not have any essential digital skills - excluded

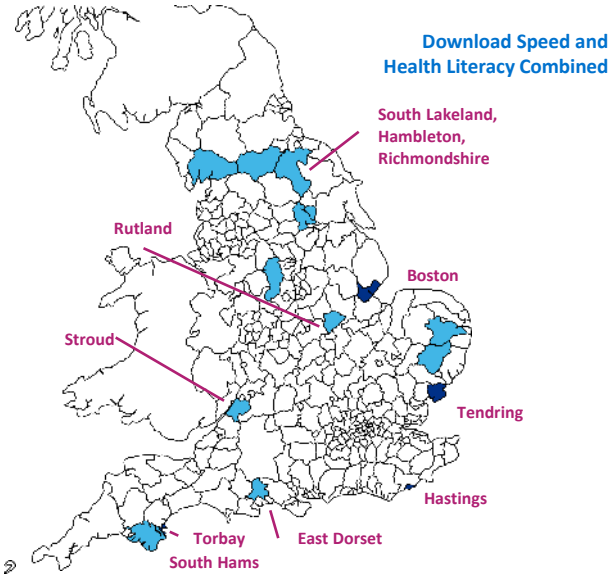
14%

Adults 18+ do not have all the seven foundational essential digital skills

Health Literacy and Digital Connectivity: overlap

NHS
Health Education England

- The overlap between the 20% worst local authorities for health literacy and the 20% worst local authorities for digital access show how:
  - Poor digital access can **limit** the benefits of the highest levels of health literacy.
  - Poor digital access can **compound** the impact of the lowest levels of health literacy.



Lowest download speed but highest Health Literacy

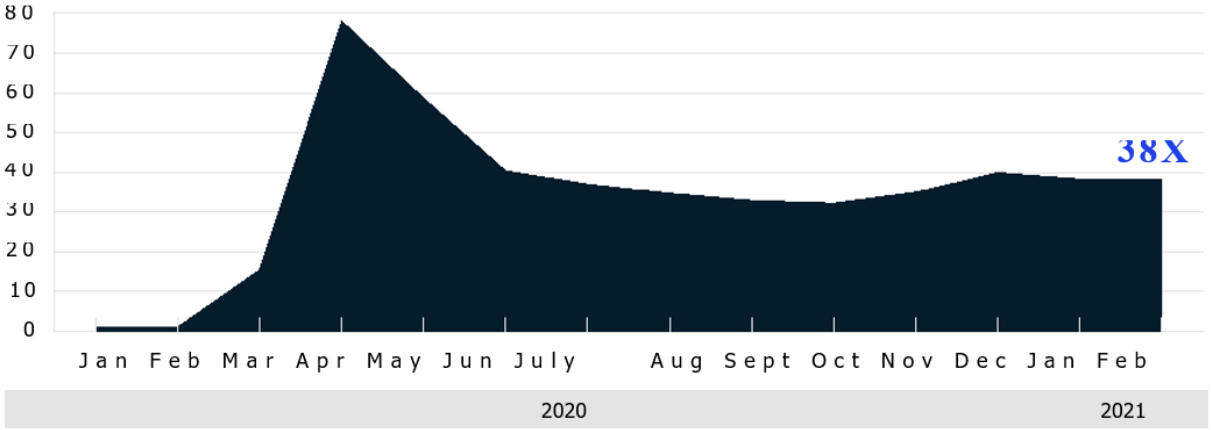
Lowest download speed and lowest Health Literacy

Mapping commissioned by HEE from University of Southampton

Virtual Care Provision

Growth in telehealth usage peaked during April 2020 but has since stabilized.

Telehealth claims volumes, compared to pre-Covid-19 levels (February 2020 = 1)[1]



[1] Includes cardiology, dental/oral, dermatology, endocrinology, ENT medicine, gastroenterology, general medicine, general surgery, gynecology, hematology, infectious diseases, neonatal, nephrology, neurological medicine, neurosurgery, oncology, ophthalmology, orthopedic surgery, poisoning/drug tox./comp. of TX, psychiatry, pulmonary medicine, rheumatology, substance use disorder treatment, urology. Also includes only evaluation and management visits; excludes emergency department, hospital inpatient, and physiatry inpatient claims; excludes certain low-volume specialties.
Source: Compile database; McKinsey analysis

Benefits for Patients and Workforce

Benefits for Patients

- Flexibility
- Increased accessed and convenience
- Promotes self-care
- Long term conditions management
- Prevention
- Appropriate use of urgent and emergency care

Benefit for workforce

- Flexibility and independence
- Reduce cost of travel
- Work-life balance

Benefits for the system/ environment

- lower cost of delivering services digitally
- more appropriate use of services, including primary care and urgent care
- better patient adherence to medicines and treatment
- Reduction in carbon emission

Interventions to address challenges

- **Data**
  - Health Literacy Geodata mapping
  - Essential Digital Skills 2021
  - Digital Skills Assessment Tool

- **Infrastructure**
  - Devices
  - Connectivity
  - Tele-health systems
  - Inter-operable systems

- **Resources**
  - Digital skills learning (secondary school- boards)
  - Community assets- librarians
  - Digital Champions
  - Leadership development- Topol, Digital Future etc.
  - Digital Specialists
  - Skills development networks

Useful resources

Health Literacy - https://www.healthliteracysolutions.org/home

Health Literacy Geodata- http://healthliteracy.geodata.uk/

Improving Digital Health Skills- https://nhs.goodthingsfoundation.org/wp-content/uploads/2016/07/Improving_Digital_Health_Skills_Report_2015.pdf

Digital literacy: https://www.hee.nhs.uk/our-work/digital-literacy

Digital Readiness programme- https://www.hee.nhs.uk/our-work/digital-readiness

Devices dot now- https://futuredotnow.uk/devicesdotnow/

Digital Champions toolkit- https://www.hee.nhs.uk/our-work/digital-literacy/digital-champions-programme-toolkit

Covide-19 and the digital divide- https://post.parliament.uk/covid-19-and-the-digital-divide/

Digital Inclusion- https://digital.nhs.uk/about-nhs-digital/our-work/digital-inclusion/digital-inclusion-in-health-and-social-care?key=

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Thank you!

Health Education England

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